



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/520,755	01/10/2005	Ralf Landgraf	18501	5061
272 7590 10/28/2008 SCULLY, SCOTT, MURPHY & PRESSER, P.C. 400 GARDEN CITY PLAZA SUITE 300 GARDEN CITY, NY 11530				
EXAMINER				
BERMAN, JASON				
ART UNIT		PAPER NUMBER		
1795				
MAIL DATE		DELIVERY MODE		
10/28/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/520,755

**Applicant(s)**

LANDGRAF ET AL.

**Examiner**

Jason M. Berman

**Art Unit**

1795

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10, 13, 14 and 16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10, 13-14, 16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/CDC)
- Paper No(s)/Mail Date \_\_\_\_.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_.

**DETAILED ACTION**

***Status of the Claims***

Claims 1-16 are pending in the current action.

Claims 11-12 and 15 are cancelled. Claims 1-10, 13-14 and 16 are currently amended.

***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Response to Amendment***

2. Applicant's amendment of 7/14/2008 does not render the application allowable.

***Status of Objections and Rejections***

3. The objection to claims 6-7, 11, and 13-16 is withdrawn in view of Applicant's amendment.

4. All rejections from the previous office action are withdrawn in view of Applicant's amendment. New grounds of rejection under 35 U.S.C 103(a) are necessitated by the amendments.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claims 1-10, 13-14 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Belli (US 5,147,521, as cited in the IDS) in view of Saunders (US 5,531,876, as cited in the IDS).

As to claim 1, Belli discloses a target support assembly comprising

- A support sleeve on which is arranged a target lining that is formed by a target sleeve that is slide on to the support sleeve (Figure 1: showing target support 10, for target 12, which is to be slid into the support 14);
- At least one clamping element being arranged to be clampingly effective between the support sleeve and the target sleeve (Figure 8: showing support 14 and target sleeve 10, with element 44 as a clamping element between the support and target sleeves);
- A plurality of elastically active clamping elements are provided which are distributed around the circumference and are formed in each case by a spring (Figure 9: showing elastic clamping element 44; col 9 lines 61-65: element 44 is spring loaded plungers; Figure

1 showing apertures 42 of sleeve 10 arranged around the circumference, apertures 42 each filled with clamping element 44 as shown in Figure 9);

- Which are arranged in a recess in the internal cylindrical surface of the support sleeve in a captive manner on the part carrying them (Figure 9: showing clamping element 44 in aperture 42 of sleeve 10; col 9 lines 62-66: clamping element 44 is inserted into aperture 42);
- And press elastically against the external cylindrical surface located opposite said clamping elements (Figure 8: showing clamping element 44 pressing against cylindrical surface of target 12); and
- The clamping element has on their inner side a convexly rounded cross-section and the base of the recess is rounded correspondingly (Figure 12: showing rounded recess 64 accepting rounded clamping element 46).

Belli is silent as to the clamping element being made of an elastically deformable and synthetic material in which thermally conductive material is embedded in the material of the clamping element

Saunders discloses a clamping element in the form of a spring clip inserted in a recess of a support sleeve (figure 2). Saunders also discloses the clamping element to be elastically deformable and composed of a synthetic material with embedded thermally conductive material (figure 2: showing spring clips deforming to clamp target

to backing plate; col 3 lines 16-19: clips are BeCu alloy; both beryllium and copper are inherently good thermal conductors).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to use an elastically deformable and thermally conductive material, as disclosed by Saunders, in the support assembly of Belli, because the elasticity would allow for removal and reapplication of the target and the thermal conductivity would improve cooling of the target by the backing plate.

As to claim 2, Belli discloses that the clamping elements have rounded insertion edges on both sides facing in the axial direction (Figure 9: showing clamping element 44 with end 46 which is rounded on all sides).

As to claim 3, Belli discloses that the clamping elements have in each case a clamping arm that exerts the clamping pressure with its free end portion (Figures 8 and 9: showing end 46 of clamping element 44 as exerting the clamping pressure between sleeve 10 and target 12).

As to claim 4, Belli discloses that an insertion segment is arranged at the free end of the clamping arm and forms a rounded roof-shaped element with the clamping arm (Figure 9: showing end 46 of tube 48 of clamping element 44, end 46 being rounded in shape).

As to claim 5, Belli discloses that the free end of the insertion segment is supported against the clamping stress in the clamping position (Figure 9; Col 4 lines 3-5: spring loaded ball 46 which can be moved into tube 48 and is resisted by a compression spring).

As to claim 6, Belli discloses the clamping elements are wedged between the side walls of a recess (Figure 12: showing clamping element 46 wedged in recess 64 to effect clamping).

As to claim 7, Saunders discloses the clamping elements are formed by an angled spring, comprising a clamping arm and base arm (figure 2: showing clamping springs 16 and 17).

As to claim 8, Saunders discloses the base arm is wedged between the sidewalls of the recess (figure 2: showing spring arm wedged between sides of recess to effect clamping).

As to claim 9, Belli discloses one or more recesses are formed as grooves extending the circumferential direction (abstract: radially disposed spring plungers and accepting grooves [as shown in figure 12]).

As to claim 10, Belli discloses the grooves extending in the circumferential direction are formed by an annular groove (Figures 8 and 12: showing annular grooves for clamping and receiving on support and target).

As to claim 13, Saunders discloses the clamping elements have a shape that is rounded viewed transversely to the axial direction of support (figure 2: showing rounded clamping clips in their recess).

As to claim 14, Saunders discloses the clamping element and recess have an annular configuration (figure 2: rounded clamp in its corresponding recess).

As to claim 16, Belli discloses the length of the support sleeve is greater than the length of the target sleeve (Figure 8: showing support 14 as longer than target 12) and

at least one annular limiting part is fixed detachably on the support sleeve at one end of the sleeve (figure 1: showing annular support rings for target 12 all screwed or clamped together [col 3 lines 44-53] to support target 12).

### ***Response to Arguments***

8. Applicant's arguments filed 7/14/2008 have been fully considered but they are not persuasive.
9. Applicant's arguments with respect to claim 1 on page 7 of the remarks have been considered but are moot in view of the new ground(s) of rejection, as necessitated by the amendment.
10. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., Applicant's arguments on page 9 of the remarks with respect to the area of contact) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

### ***Conclusion***

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).



A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason M. Berman whose telephone number is (571)270-5265. The examiner can normally be reached on M-R 8am-5pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen can be reached on (571)272-1342. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Nam X Nguyen/  
Supervisory Patent Examiner, Art Unit 1753

/J. M. B./  
Examiner, Art Unit 1795